AMENDMENTS TO THE DRAWINGS:

The attached drawing sheets include a change to Figure 2. The sheet which includes Figure 2 replaces the original sheet including Figure 2. The figure has been amended to more clearly indicate the reference numbers and labels of the contents of the schematic block diagram of a patient positioning assembly for therapeutic radiation treatment in Figure 2. It is respectfully submitted that the proposed amendments to the drawings do not add new matter.

Attachment: Annotated Sheet Showing Changes
               Replacement Sheet

–

REMARKS

Applicant respectfully requests reconsideration of this application as amended.

As a preliminary matter, in the Office Action mailed May 31, 2005, the Examiner has objected to the drawings "because 'contents in a flowchart boxes of figure 2 are not shown." (See Office Action, 5/31/05, pg. 2). The applicants respectfully disagree with the Office Action's characterization of Figure 2. Figure 2 illustrates a schematic block diagram of a patient positioning assembly for therapeutic radiation treatment, and not boxes of flowchart. Applicants have amended Figure 2 to more clearly indicate the reference numbers and labels of the contents of the block diagram of Figure 2. It is respectfully submitted that the proposed amendments to the drawings do not add new matter. Applicants respectfully request that the objection to the drawings be withdrawn.

Summary of the Office Action

Claims 1, 3, 7-16, 19-23, 32 and 38 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,125,164 of Murphy et al. ("Murphy").

Claims 1, 3, and 32 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,865,253B2 of Blumhofer et al. ("Blumhofer").

Claims 2, 4-6, 17-18, 24-31 and 33-35 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy in view of U.S. Patent No. 6,810,108B2 of Clark et al. ("Clark").

Claims 36-37 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy in view of U.S. Patent No. 6,385,286B1 of Fitchard et al. ("Fitchard").

Claim 9 has been objected to because of the following formalities: In claim 9 at line 1, "said five degrees" lacks antecedent basis."

Status of Claims

Claims 1-66 are pending in the application. Claims 1, 3, 5, 7-10, 13, 16-17, 19, 21-24, 27, 29, 31-37 have been amended to more properly define a preexisting claim limitation. The amended claims are supported by the specification. Claims 39-66 have been added. No new matter has been added. Claims 4, 6, 30, and 38 have been cancelled.

35 U.S.C. § 102(b) Rejections

Claims 1, 3, 7-16, 19-23, 32 and 38 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Murphy.

Applicants respectfully submit that claim 1 is patentable over the cited reference. Claim 1 as amended recites:

> A patient positioning assembly for adjusting a patient position during radiosurgery, said patient positioning assembly comprising:
> a.   a support device to support the patient during treatment; and
> b.   **a controller coupled to the support device to control the motion of said support device**, said controller comprising:
>> i)   means for receiving pre-treatment scan data representative of one or more pre-treatment scans of a treatment target within the patient, the pre-treatment scans showing the position and orientation of said target with respect to a pre-treatment coordinate system;
>> ii)   means for receiving image data containing information regarding the near real time position and orientation of said target with respect to a treatment coordinate system, said treatment coordinate system having a predetermined relationship to said pre-treatment coordinate system; and
>> iii)   means, responsive to said pre-treatment scan data and said image data, for **generating at least one motion command signal for implementing one or more corrective motions of said support device** to substantially match the position and orientation of said target as shown in said pre-treatment scan data of said target with the position and orientation of said target of the near real time image data.

(emphasis added)

The Office Action states:

> Regarding claim 1, 3 and 32, Murphy teaches a patient positioning assembly for adjusting patient position during therapeutic radiation treatment, said patient positioning assembly comprising (figure 1): a. a support device for supporting the patient during treatment; b.

at least one sensor for sensing the position and orientation of said support device, and for generating at least one sensor signal representative thereof (at least one sensor such as encoders is required to locate Murphy's portioning[sic] apparatus in response to the corrected signal); c. **a controller (44) for controlling the motion of said support device in order to align said target with respect to said treatment beam generator, said controller comprising (figure 1):** i) means (44) for receiving pre-treatment scan data (DDRs)[sic] representative of one or more pre-treatment scans of a treatment target within the patient, the pre-treatment scans showing the position and orientation (column 4 line 52, column 5 line 17) of said target with respect to a pre-treatment coordinate system (column 4 line 38); ii) means (42, 36) for activating an imaging system so that said imaging system generates image data representative of at least one near real time image of said target (column 5 line 2), said image data containing information regarding the near real time position and orientation of said target (Column 4 line 52 and column 5 line 6-17) with respet to a treatment coordinate system, said treatment coordinate system having a predetermined relationship to said pre-treatment coordinate system (figure 3); and iii) means (44), responsive to said pre-treatment scan data (DDRs)[sic] and said image data (31), for generating at least one motion command signal for implementing one or more corrective motions of said support device (column 5 line 31-32), **said corrective motions of said support device aligning said target with respect to said treatment apparatus** so that the position and orientation of said target, as shown in said near real-time image data of said target, substantially match (X^2, column 5 line 25) the position and orientation of said target as shown in said pre-treatment scan data of said target (column 6 line 13).

(Office Action, 5/31/05, pgs. 3-4)(emphasis added)

Applicants respectfully disagree with the Office Action's characterization of Murphy. The Office Action purports that computer 44 controls the motion of treatment couch 34. (See Murphy, Figure 3). Applicants submit that computer 44 of Murphy is not coupled to treatment couch 34, and does not control the motion of treatment couch 34.

Murphy, in general, discloses "a system and method for aligning radiation therapy beams with a treatment target of a patient." (See Murphy, Abstract). More specifically, Murphy discloses that "[m]asked real-time radiographs 31 are used to produce a first feature vector, which specifically identifies the position and orientation of treatment target 32 within the treatment coordinate system ... [next,] intermediate 3-D image 54 is manipulated until its position emulates the position and orientation of treatment target 32. New DRRs 56 are then generated from intermediate 3-D image 54." (See col. 5, lines 7-15 and col. 3, lines 23-28). "These DRRs 56 are masked to isolate the same key pixels 64 as in real-time radiographs 31 and processed to produce a second feature vector, which specifically identifies the position and orientation of the treatment target of intermediate 3-D image 54 with the diagnostic coordinate system." (See col. 5, lines 15-20). "The two feature vectors are then compared using a

mathematical equation ... [and after completing its determination of treatment target 32 position and orientation ...*[t]his information is passed on to the beam delivery system 40 (e.g. Cyberknife) and the radiation therapy beams 38 are allowed to operate.*" (See col. 5, lines 21-32 and col. 3, lines 23-28). Murphy further discloses that "[t]his *information is sent to beam delivery system 40 and radiation therapy beams 38 are realigned.*" (See col. 6, lines 10-14). This shows that **computer 44 passes treatment target position and orientation information to beam delivery system 40 and realigns radiation therapy beams 38**, and not to treatment couch 34.

In contrast, claim 1 recites "**a controller coupled to the support device for controlling the motion of said support device**, said controller comprising: ... means, responsive to said pre-treatment scan data and said image data, for **generating at least one motion command signal for implementing one or more corrective motions of said support device.**" (emphasis added). Applicants respectfully submit that nothing in Murphy discloses "a controller coupled to the support device for controlling the motion of said support device, said controller comprising: ... means, responsive to said pre-treatment scan data and said image data, for generating at least one motion command signal for implementing one or more corrective motions of said support device," as recited in claim 1.

Murphy describes that "[d]ata from the repositioned intermediate 3-D image is used to *adjust either the patient or the radiation therapy beams*" and that "[i]t is *also possible to reposition patient* 30." (See col. 3, lines 37-40, col. 6, lines12-13, and Abstract). However, it is submitted that such a description does not support the conclusion reached in the Office Action and that such a conclusion is inapposite. Applicants respectfully submit that in order to serve as an anticipating reference, the reference must enable that which it is asserted to anticipate. A claimed invention cannot be anticipated by a prior art reference if the allegedly anticipatory disclosures cited as prior art are not enabled. (See MPEP 2121.01 citing Elan Pharmaceuticials, Inc. v. Mayo Foundation for Medical Education and Research, 346 F.3d 1051, 1054 (Fed. Cir. 2003)).

The stated "computer 44" of Murphy, as shown in Figure 3, is not coupled in any manner to treatment couch 34, nor discussed in other portions of the specification of Murphy. Conversely, Murphy illustrates and describes the computer 44 being coupled to beam delivery system 40 and two radiographic cameras 42. (See Murphy, Figure 3, col. 4, lines 58-59, and col. 5, lines 30-32). As such, the computer 44 is not coupled to the treatment couch 34, nor does it control the motion of the treatment couch, as asserted by the Office Action. Under Elan Pharmaceuticals, enablement requires that the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation. It is submitted that one of ordinary skill in the art would not be able to make a system that permits the computer 44 to control the treatment couch 34 without first being coupled. Thus, Murphy does not enable that which it is asserted to anticipate.

Therefore, for the abovementioned reasons, applicants submit that claim 1 is patentable over the cited reference.

Given that claims 2-3, 5, and 7-29 depend from claim 1, applicants submit that claims 2-3, 5, and 7-29 are also patentable over the cited reference.

Applicants respectfully submit that claim 31 is patentable over the cited reference. Independent claim 31 as amended recites:

A patient positioning assembly comprising:

A.   a support device to support a patient during treatment; and

B.   **a controller coupled to the support device**, said controller comprising:

a)   an input module to receive pre-treatment scan data and near real time image data of a target;

b)   a comparator to determine one or more corrective motions of said support device from the pre-treatment scan data and near real time image data; and

c)   **a signal generator coupled to said comparator for generating at least one motion command signal to implement one or more corrective motions of said support device.**

(emphasis added)

Murphy discloses that position and orientation *"information is sent to beam delivery system 40 and radiation therapy beams 38 are realigned."* (See col. 6, lines 10-14). This shows

that **computer 44 passes treatment target position and orientation information to beam delivery system 40 and realigns radiation therapy beams 38**, and not to treatment couch 34.

In contrast, claim 31 recites **"controller coupled to the support device"** and **"a signal generator** coupled to said comparator **for generating at least one motion command signal to implement one or more corrective motions of said support device."** (emphasis added). Applicants respectfully submit that nothing in Murphy discloses "controller coupled to the support device" and "a signal generator coupled to said comparator for generating at least one motion command signal to implement one or more corrective motions of said support device," as recited in claim 31.

Murphy describes that "[d]ata from the repositioned intermediate 3-D image is used to *adjust either the patient or the radiation therapy beams*" and that "[i]t is *also possible to reposition patient* 30." (See col. 3, lines 37-40, col. 6, lines12-13, and Abstract). However, it is submitted that such a description does not support the conclusion reached in the Office Action and that such a conclusion is inapposite. Applicants respectfully submit that in order to serve as an anticipating reference, the reference must enable that which it is asserted to anticipate. A claimed invention cannot be anticipated by a prior art reference if the allegedly anticipatory disclosures cited as prior art are not enabled. (See MPEP 2121.01 citing Elan Pharmaceuticials, Inc. v. Mayo Foundation for Medical Education and Research, 346 F.3d 1051, 1054 (Fed. Cir. 2003)).

The stated "computer 44" of Murphy, as shown in Figure 3, is not coupled in any manner to treatment couch 34, nor discussed in other portions of the specification of Murphy. Conversely, Murphy illustrates and describes the computer 44 being coupled to beam delivery system 40 and two radiographic cameras 42. (See Murphy, Figure 3, col. 4, lines 58-59, and col. 5, lines 30-32). As such, the computer 44 is not coupled to the treatment couch 34, nor does it control the motion of the treatment couch, as asserted by the Office Action. Under <u>Elan</u> <u>Pharmaceuticals,</u> enablement requires that the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation. It is

submitted that one of ordinary skill in the art would not be able to make a system that permits the

computer 44 to control the treatment couch 34 without first being coupled. Thus, Murphy does

not enable that which it is asserted to anticipate.

Therefore, for the abovementioned reasons, applicants submit that claim 31 is patentable

over the cited reference.

Given that claims 32-37, and 39-40 depend from claim 31, applicants submit that claims

32-37, and 39-40 are also patentable over the cited reference.

Applicants respectfully submit that claim 41 is patentable over the cited reference.

Independent claim 41 recites:

> A method comprising:
>
> receiving pre-treatment scan data representative of one or more pre-treatment scans of a treatment target within a patient on a support device, the pre-treatment scans showing the position and orientation of the treatment target with respect to a pre-treatment coordinate system;
>
> receiving image data containing information regarding the near real time position and orientation of the treatment target with respect to a treatment coordinate system, the treatment coordinate system having a predetermined relationship to the pre-treatment coordinate system; and
>
> **generating at least one motion command signal for implementing one or more corrective motions of the support device to move the support device** to substantially match the position and orientation of said target as shown in said pre-treatment scan data of said target with the position and orientation of said target of the near real time image data.

(emphasis added)

Murphy discloses that position and orientation *"information is sent to beam delivery system 40 and radiation therapy beams 38 are realigned."* (See col. 6, lines 10-14). This shows that **computer 44 passes treatment target position and orientation information to beam delivery system 40 and realigns radiation therapy beams 38**, and not to treatment couch 34.

In contrast, claim 41 recites "**generating at least one motion command signal for implementing one or more corrective motions of the support device to move the support device.**" (emphasis added). Applicants respectfully submit that nothing in Murphy discloses

"generating at least one motion command signal for implementing one or more corrective motions of the support device to move the support device," as recited in claim 41. Therefore, applicants submit that claim 41 is patentable over the cited reference.

Given that claims 42-59 depend from claim 41, applicants submit that claims 42-59 are also patentable over the cited reference.

Applicants respectfully submit that claim 60 is patentable over the cited reference. Independent claim 60 recites:

> A method comprising:
> providing a support device;
> providing a therapeutic radiation source; and
> **moving the support device with respect to the radiation source in at least 3 degrees of freedom** to align a treatment target with respect to the therapeutic radiation source.

(emphasis added)

Murphy discloses that position and orientation *"information is sent to beam delivery system 40 and radiation therapy beams 38 are realigned."* (See col. 6, lines 10-14). This shows that **computer 44 passes treatment target position and orientation information to beam delivery system 40 and realigns radiation therapy beams 38,** and not to treatment couch 34.

In contrast, claim 60 recites **"moving the support device with respect to the therapeutic radiation source in at least 3 degrees of freedom."** (emphasis added). Applicants respectfully submit that nothing in Murphy discloses "moving the support device with respect to the therapeutic radiation source in at least 3 degrees of freedom," as recited in claim 60. Therefore, applicants submit that claim 60 is patentable over the cited reference.

Given that claims 61-64 depend from claim 60, applicants submit that claims 61-64 are also patentable over the cited reference.

35 U.S.C. § 102(e) Rejections

Claims 1, 3, and 32 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Blumhofer.

Independent claim 1 recites the limitation "image data containing information regarding the near real time position and orientation of said target with respect to a treatment coordinate system."

Blumhofer fails to disclose at least this limitation, as recited in claim 1. Blumhofer, discloses that "the patient P is placed on the patient table 4 and initially pre-positioned in the treatment position as accurately as possible with respect to the linear accelerator 1." (See col. 6, lines 30-33). "In the next step, the patient P is moved back out of pre-positioning using a defined offset, and into a recording position I" and " [a]n x-ray image (x-ray image–actual position I) is now taken with the aid of the x-ray source 3 and the detector 6, and transferred to the computer system." (See col. 6, lines 37-39 and 50-52). "In a further step, the patient P is now moved into recording position 11" and "[a]n x-ray image ("x-ray image—actual position II") is then produced with the aid of the x-ray source 2 and recorded by the x-ray detector 6, and transferred to the computer system." (See col. 6, lines 63-64 and col. 7, lines 5-8). "Following this, the reconstructed images or virtual images (DRR=Digitally Reconstructed Radiographs) corresponding to the x-ray images are then produced." (See col. 7, lines 12-14). "**The input data for producing the reconstructed images ... are on the one hand the positions of the radiation sources 15 and 16.**" (See col. 7, lines 25-28)(emphasis added). The "virtual x-ray images (DRRs) defining the 'desired content' of the real x-ray images are calculated analogously to the really[sic] existing x-ray images "actual position I" and "actual position II" by the computer system with the aid of three-dimensional image data set." (See col. 7, lines 40-45). The reconstructed images of Blumhofer do not constitute image data containing information regarding the near real time position and orientation of said target with respect to a treatment target because the **reconstructed images of Blumhofer contain information regarding the position of the radiation sources 15 and 16**, and not the position and orientation of the treatment target.

Therefore, independent claim 1 is patentable over Blumhofer.

Given that claims 2-3, 5, and 7-29 depend from claim 1, claims 2-3,5, and 7-29 are also patentable over the cited reference.

Indpendent claim 31 recites the limitation "**near real time image data of a target.**"

Blumhofer fails to disclose at least this limitation, as recited in claim 31. Blumhofer, discloses that "the patient P is placed on the patient table 4 and initially pre-positioned in the treatment position as accurately as possible with respect to the linear accelerator 1." (See col. 6, lines 30-33). "In the next step, the patient P is moved back out of pre-positioning using a defined offset, and into a recording position I" and " [a]n x-ray image (x-ray image–actual position I) is now taken with the aid of the x-ray source 3 and the detector 6, and transferred to the computer system." (See col. 6, lines 37-39 and 50-52). "In a further step, the patient P is now moved into recording position 11" and "[a]n x-ray image ("x-ray image—actual position II") is then produced with the aid of the x-ray source 2 and recorded by the x-ray detector 6, and transferred to the computer system." (See col. 6, lines 63-64 and col. 7, lines 5-8). "Following this, the reconstructed images or virtual images (DRR=Digitally Reconstructed Radiographs) corresponding to the x-ray images are then produced." (See col. 7, lines 12-14). "**The input data for producing the reconstructed images ... are on the one hand the positions of the radiation sources 15 and 16.**" (See col. 7, lines 25-28)(emphasis added). The "virtual x-ray images (DRRs) defining the 'desired content' of the real x-ray images are calculated analogously to the really[sic] existing x-ray images "actual position I" and "actual position II" by the computer system with the aid of three-dimensional image data set." (See col. 7, lines 40-45). The reconstructed images of Blumhofer do not constitute near real time image data of a target because the **reconstructed images of Blumhofer contain information regarding the position of the radiation sources 15 and 16**, and not the position and orientation of the treatment target.

Therefore, independent claim 31 is patentable over Blumhofer

Given that claims 32-37, and 39-40 depend from claims 31, claims 32-37, and 39-40 are also patentable over the cited reference.

Independent claim 41 recites the limitation "image data containing information regarding the near real time position and orientation of said target with respect to a treatment coordinate system."

Blumhofer fails to disclose at least this limitation, as recited in claim 41. Blumhofer, discloses that "the patient P is placed on the patient table 4 and initially pre-positioned in the treatment position as accurately as possible with respect to the linear accelerator 1." (See col. 6, lines 30-33). "In the next step, the patient P is moved back out of pre-positioning using a defined offset, and into a recording position I" and " [a]n x-ray image (x-ray image–actual position I) is now taken with the aid of the x-ray source 3 and the detector 6, and transferred to the computer system." (See col. 6, lines 37-39 and 50-52). "In a further step, the patient P is now moved into recording position 11" and "[a]n x-ray image ("x-ray image—actual position II") is then produced with the aid of the x-ray source 2 and recorded by the x-ray detector 6, and transferred to the computer system." (See col. 6, lines 63-64 and col. 7, lines 5-8). "Following this, the reconstructed images or virtual images (DRR=Digitally Reconstructed Radiographs) corresponding to the x-ray images are then produced." (See col. 7, lines 12-14). **"The input data for producing the reconstructed images ... are on the one hand the positions of the radiation sources 15 and 16."** (See col. 7, lines 25-28)(emphasis added). The "virtual x-ray images (DRRs) defining the 'desired content' of the real x-ray images are calculated analogously to the really[sic] existing x-ray images "actual position I" and "actual position II" by the computer system with the aid of three-dimensional image data set." (See col. 7, lines 40-45). The reconstructed images of Blumhofer do not constitute image data containing information regarding the near real time position and orientation of said target with respect to a treatment target because the **reconstructed images of Blumhofer contain information regarding the position of the radiation sources 15 and 16**, and not the position and orientation of the treatment target.

Therefore, independent claim 41 is patentable over Blumhofer

Given that claims 42-59 depend from claim 1, claims 42-59 are also patentable over the cited reference.

Applicants respectfully submit that claim 60 is patentable over the cited reference. Independent claim 60 recites:

> A method, comprising:
> providing a support device;
> providing a therapeutic radiation source; and
> **moving the support device with respect to the therapeutic radiation source in at least 3 degrees of freedom** to align a treatment target with respect to the therapeutic radiation source.

(emphasis added)

Blumhofer fails to disclose at least this limitation, as recited in claim 60. Blumhofer, as shown in Figures 1, and 4-7, discloses "the patient P is moved back out of pre-positioning using a defined offset, and into a recording position I, as shown in FIG. 5 ... [t]he patient can then **be shifted** by directly guiding the patient table 4 with the aid of co-ordinates and guiding the patient table 4 with the aid of the tracking system and markers 13 arranged on the patient P or on the table 4. Furthermore, the patient may also be **manually shifted**." (See col. 6, lines 37-46). "In a further step, the patient P is now moved into recording position 11, shown in FIG. 6. ... Here too, the patient can then **be shifted** by the measures already mentioned above." (See col. 6, lines 63-67 and col. 7, line 1). Furthermore, Blumhofer discloses that "[t]he x-ray detector [6] can be moved vertically using the support 5, the patient **table 4 can however be moved horizontally,** independent of the detector 6. The horizontal shifting by directly guiding the patient table 4 with the aid of co-ordinates and guiding the patient table 4 with the aid of the tracking system and markers 13, or the manual **shifting of the patient table 4 do not constitute "moving the support device with respect to the therapeutic radiation source in at least three degrees of freedom,"** as recited in claim 60, because the patient table 4 is moved only in a horizontal plane, including at most 2 degrees of freedom. Therefore, applicants submit that claim 60 is patentable over the cited reference.

Given that claims 61-64 depend from claim 60, applicants submit that claims 61-64 are also patentable over the cited reference.

35 U.S.C. § 103(a) Rejections

Claims 2, 4-6, 17-18, 24-31 and 33-35 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy in view of Clark. The Office Action states that "Murphy fails to teach said controller includes user interface means for enabling the user to interactively control said corrective motions of the support device, by implementing one or more user-selectable functions. (Office Action, 5/31/04, page 8). Applicants respectfully disagree with the rejections because Murphy does not teach or suggest the claim limitations of claims 2, 4-6, 17-18, 24-31 and 33-35.

As to claims 2, 4-6, 17-18, 24-30, which depend from claim 1 and include all of its limitations, Murphy does not disclose, teach or suggest "a controller coupled to the support device for controlling the motion of said support device, said controller comprising: … means, responsive to said pre-treatment scan data and said image data, for generating at least one motion command signal for implementing one or more corrective motions of said support device" as recited in claim 1, as discussed above. Therefore, Murphy does not teach or suggest "a controller coupled to the support device for controlling the motion of said support device, said controller comprising: … means, responsive to said pre-treatment scan data and said image data, for generating at least one motion command signal for implementing one or more corrective motions of said support device," as recited in claims 2, 4-6, 17-18, 24-30. Accordingly, applicants submit that claims 2, 4-6, 17-18, 24-30 are not rendered obvious by Murphy.

Moreover, applicants submit that Clark fails to cure the deficiencies noted above with respect to Murphy and, therefore, claims 2, 4-6, 17-18, 24-30 are patentable over the cited references.

As to claim 31, nothing in Murphy teaches or suggests "controller coupled to the support device" and "a signal generator coupled to said comparator for generating at least one motion command signal to implement one or more corrective motions of said support device," as recited in claim 31. Accordingly, applicants submit that claim 31 is not rendered obvious by Murphy.

Moreover, applicants submit that Clark fails to cure the deficiencies noted above with respect to Murphy and, therefore, claim 31 is patentable over the cited references.

Given that claims 32-37, and 39-40 depend from claim 31, applicants submit that claims 32-37, and 39-40 are also patentable over the cited references.

Claims 36-37 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Murphy in view of Fitchard. The Office Action states:

> Murphy fails to teach said corrective motions of said support device, implemented by said motion command signal generated by said controller, compensate for one or more pateitne motions of said patient that takes place during treatment. Fitchard teaches corrective motions of said support device, implemented by a motion command signal generated by a controller, compensate for one or more patient motions of said patient that take place during treatment (column 3 line 8-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the therapy system of Murphy with the motion correction system as taught by Fitchard, since the motion correction would provide more accurate patient positioning and lesser target beam misalignment.

(Office Action, 5/31/05, page 11).

Applicants respectfully disagree with the rejections because Murphy does not teach or suggest the claim limitations of claims 36-37.

Claims 36-37, which depend from claim 31 and include all of its limitations, Murphy does not disclose, teach or suggest a "controller coupled to the support device" and "a signal generator coupled to said comparator for generating at least one motion command signal to implement one or more corrective motions of said support device," as recited in claim 31. Therefore, Murphy does not teach or suggest "controller coupled to the support device" and "a signal generator coupled to said comparator for generating at least one motion command signal to implement one or more corrective motions of said support device," as recited in claims 36-37. Accordingly, applicants submit that claims 36-37 are not rendered obvious by Murphy.

Moreover, applicants submit that Fitchard fails to cure the deficiencies noted above with respect to Murphy and, therefore, claim 36-37 are patentable over the cited references.

Claim Objection

Claim 9 has been objected to because of the following formalities, as stated in the Office Action: "In claim 9 at line 1, "said five degrees" lacks antecedent basis." (See Office Action, 5/31/05, page 2). Applicants submit that claim 9, as amended, does not lack antecedent basis, and respectfully submit that the objection be withdrawn.
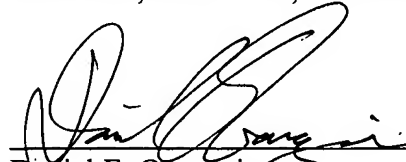
Conclusion

Having tendered the above remarks and amended the claims as indicated herein, the Applicants respectfully submit that all rejections have been addressed and that the claims are now in a condition for allowance, which is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666. If a telephone interview would in any way expedite the prosecution of the present application, the Examiner is invited to contact Daniel Ovanezian at (408) 720-8300.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: October 13, 2005

Daniel E. Ovanezian
Registration No. 41,236

12400 Wilshire Blvd.
Seventh Floor
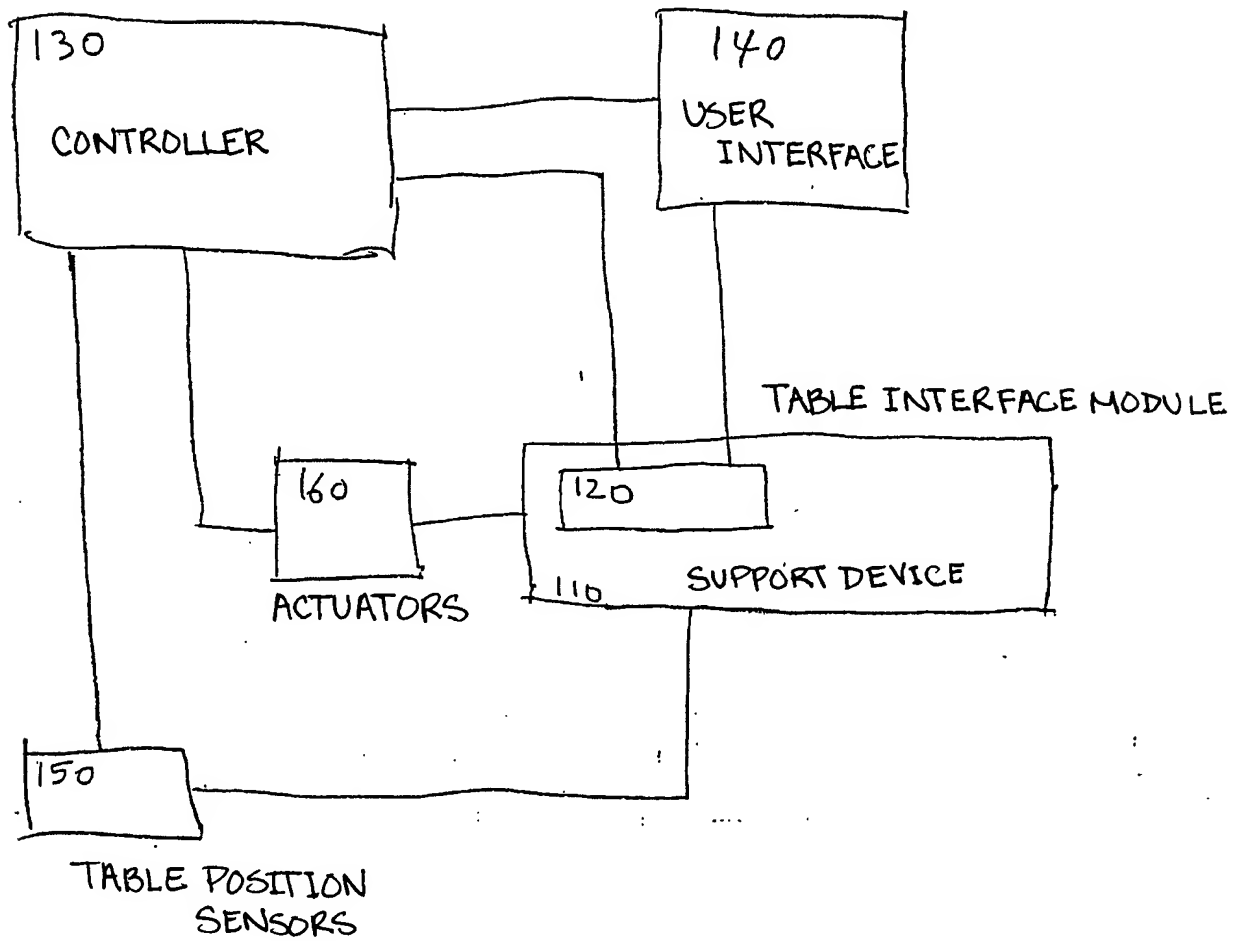Los Angeles, CA 90025-1026
(408) 947-8200

Blakely, Sokoloff, Taylor & Zafman LLP   (408) 720-8300
Title: PATIENT POSITIONING ASSEMBLY FOR THERAPEUTIC
RADIATION SYSTEM
1st Named Inventor: Eric Earnst
Application No.: 10/687,860   Docket No.: 7291P012
Sheet: 1 of 2   Annotated Marked-up Drawings

130 CONTROLLER

140 USER INTERFACE

TABLE INTERFACE MODULE

160 ACTUATORS

120

110 SUPPORT DEVICE

150

TABLE POSITION SENSORS

100

FIG 2